WHAT IS CLAIMED IS:

1. A multilayer reflective film comprising a plurality of optical repeat units, at least some of the optical repeat units comprising individual layers A, B, C, D arranged in a six-layer sequence CACDBD, or a cyclic permutation thereof, the A and B layers being optically thicker than the C and D layers, and where the individual layers have refractive indices that satisfy the relationship $n_A \geq n_D > n_C > n_B$ or the relationship $n_A > n_D > n_C \geq n_B$.

2. The film of claim 1, wherein the individual layers each have isotropic refractive indices.

3. The film of claim 1, wherein at least one of the individual layers is birefringent, and wherein the refractive indices n_A , n_B , n_C , n_D are measured along an axis in the plane of the film at a design wavelength.

4. The film of claim 3, wherein the individual layers have refractive indices measured along an axis perpendicular to the plane of the film that are substantially matched.

5. The film of claim 1, wherein at least one of the optical repeat units has an optical thickness of one-half of a design wavelength $\lambda_0/2$, so as to reflect light at the design wavelength λ_0.

6. The film of claim 5, wherein λ_0 is between about 700 and 2000 nm.

7. The film of claim 5, wherein the thicknesses and refractive indices of the individual layers are selected to suppress reflection of light at least at wavelengths of $\lambda_0/2$, $\lambda_0/3$, and $\lambda_0/4$.

8. The film of claim 5, wherein the individual layers have refractive indices that satisfy the relationship $n_A > n_D > n_C > n_B$.

9. The film of claim 8, wherein the refractive indices of the individual layers further satisfy the relationship $n_A + n_B = n_C + n_D$, wherein the A layer has an optical thickness t_A and the B layer has an optical thickness t_B, and $t_A = t_B$; wherein each C layer has an optical thickness t_C and each D layer has an optical thickness t_D, and $t_C = t_D$; and wherein the relationship

$$\frac{3\pi X_3}{2} = \pi - \arcsin\left(\frac{-\Delta n_{DC}}{2\Delta n_{AB} + \Delta n_{DC}}\right)$$

is satisfied, where $X_3 = t_A/(t_A + 2t_C)$, where $\Delta n_{AB} = n_A - n_B$, and where $\Delta n_{DC} = n_D - n_C$.

10. The film of claim 5, wherein the individual layers have refractive indices that satisfy the relationship $n_A = n_D > n_C > n_B$ or the relationship $n_A > n_D > n_C = n_B$.

11. The film of claim 1, wherein the individual layers are composed of polymeric materials.

12. The film of claim 1, wherein the layers are composed of inorganic materials.

13. The film of claim 1, wherein the optical repeat units are arranged to have a thickness profile that changes along a thickness axis of the film.